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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,274	04/24/2000	Oscar E. Agazzi	36178/PQH/B600	8093
7590 01/09/2004				
CHRISTOPHER C. WINSLADE MCANDREWS, HELD & MALLOY 500 W. MADISON STREET SUITE 3400 CHICAGO, IL 60661		EXAMINER LIU, SHUWANG		
		ART UNIT PAPER NUMBER		
		2634		
		DATE MAILED: 01/09/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,274

Applicant(s)

AGAZZI, OSCAR E.

Examiner

Shuwang Liu

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-8 and 15-22 in Paper No. 8 is acknowledged.

Information Disclosure Statement

2. The information disclosure statement filed 10/30/00 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

3. Claims 1-8 and 15-22 are objected to because of the following informalities:
 - (1) In claim 1, line 5, delete "the" before PHY and change "the" before "Serial" to -a-; and
 - (2) In claim 15, line 8, change "the" before "Serial" to -a-.Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-8 and 15-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not describe receiving at the PHY Control “diagnostics signals from the DSP and the PCS” as recited in line 6 of claim 1 and line 9 of claim 15, respectively. As shown in figure 3 and described on page 38 (lines 12-13), the DSP and PCS only generate status signals 138.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-3, 6-8, 15-17, and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Trans (US 6,377,640).

As shown in figures 1A-1D, 3 and 10C-2, Trans discloses:

(1) regarding claims 1 and 15:

a method and a module for controlling operation of a multi-pair gigabit transceiver, the multi-pair gigabit transceiver comprising a Physical Layer Control module (PHY Control) (PMA, 325 and 328, or control reg, status reg, power reg in figure 1D), a Physical Coding Sublayer module (PCS) (column 58, lines 16-65) and a Digital Signal Processing module (DSP) (transceiver, figure 10C-2 or 342), the method comprising:

receiving at the PHY Control (PMA et al.) user-defined inputs from the Serial Management module (323 and 324) and status signals and diagnostics signals from the DSP and the PCS (column 60, lines 1-54); and

generating control signals responsive to the user-defined inputs, the status signals and diagnostics signals, from the PHY Control to the DSP and the PCS (column 60, lines 1-54).

(2) regarding claims 2 and 16:

wherein the multi-pair gigabit transceiver further comprises an Auto-Negotiation module (329), the method further comprising:

receiving at the PHY Control a link control signal from the Auto-Negotiation module to start operation of the PCS and the DSP (column 60, line 1-54).

(3) regarding claims 3 and 17:

wherein the multi-pair gigabit transceiver further comprises a Gigabit Medium Independent Interface (GMII) module (31), the method further comprising:

receiving at the PHY Control a transmit enable signal from the GMII module to start transmission of data packets (see figure 3 and figure 1D).

(4) regarding claims 6 and 20:

wherein the DSP (see figure 10C-2) comprises a set of echo cancellers and a set of near-end cross-talk (NEXT) cancellers, and wherein the control signals include echo and NEXT control signals to control convergence of the echo cancellers and NEXT cancellers (see figure 10b), respectively.

(5) regarding claims 7 and 21:

wherein the DSP comprises (see figure 10C-2) a multi-dimensional decision feedback equalizer (DFE) and wherein the control signals include DFE control signals to

control convergence of the multi- dimensional DFE (see figure 10b and column 45, lines 1-31).

(6) regarding claims 8 and 22:

wherein the DSP comprises a timing recovery (TR) module and wherein the control signals include TR control signals to control convergence of the timing recovery module.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is (703) 308-9556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Application/Control Number: 09/557,274
Art Unit: 2634

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature in cursive script, appearing to read "Shuwang Liu".

Shuwang Liu
Primary Examiner
Art Unit 2634

January 7, 2004